

# POWER CONVERSION APPARATUS WITH DC BUS PRECHARGE CIRCUITS AND METHODS OF OPERATION THEREOF

## ABSTRACT OF THE DISCLOSURE

A power conversion apparatus, such as a UPS, includes a DC link including first and second DC busses and a reference bus and a DC generator circuit coupled to the DC link and operative to generate first and second DC voltages with respect to the reference bus on respective ones of the first and second DC busses. The apparatus  
5 further includes a precharge circuit coupled to the DC link and operative to charge a first capacitance between the first DC bus and the reference bus and to transfer charge from the charged first capacitance to a second capacitance between the second DC bus and the reference bus. The DC generator circuit may be operative to commence generation of the first and second DC voltages on the first and second DC busses after  
10 the precharge circuit precharges the first and second DC busses. Related operating methods are also discussed.